LakeBed 2030: a call for Great Lakes high-resolution mapping and bathymetry

The fourth annual Lakebed 2030 conference was held September 28–30 in Traverse City, Michigan, at Northwestern Michigan College's Great Lakes Water Studies Institute. This conference emphasizes the need for high-resolution mapping and bathymetry throughout the Great Lakes, along with strategies to archive and catalog these data.

With more than 200 people in attendance from multiple countries, the event included 12 on-water demonstrations showing some of the latest marine technologies, along with multiple talks regarding mapping projects, strategies, and future plans. Recordings from the conference are available online.

U.S. Senator Gary Peters kicked off the conference with welcoming remarks, followed by a keynote address by Rear Admiral Ben Evans, director of the NOAA Office of Coast Survey (OCS). Evans emphasized the importance of connecting regional mapping initiatives, along with the work conducted by OCS throughout the Great Lakes and the U.S. exclusive economic zone.



At left, Rear Admiral Ben Evans, director of the NOAA Office of Coast Survey, provides keynote address. At right, a Seafloor Systems Autonomous Surface Vessel conducting multibeam sonar operations in the NMC harbor. Credit: Northwestern Michigan College.

Lakebed 2030 continues to be a driving force toward 100 percent coverage of the Great Lakes. Next year's Lakebed 2030 conference will be held September 19–21 in Traverse City. For more information, contact Hans Vansumeren at hvansumeren@nmc.edu.

BOOK REVIEW:

The story of water

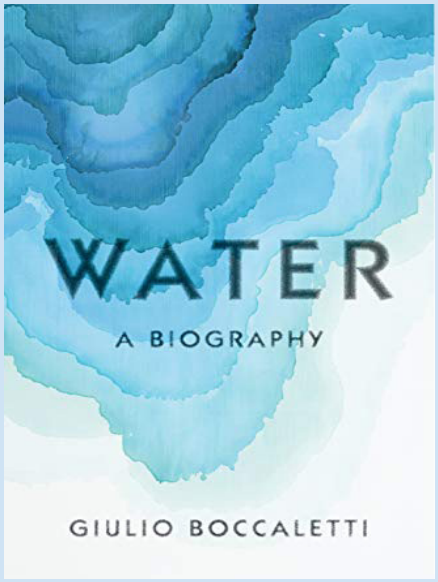
by Audrey Whitaker, Jillian Greene, Ian Stone, Nate Dugener, Janie Cook, Tony Weinke, and Bopi Biddanda

THE HISTORY OF HUMANITY is intimately bound to water in an abiding social contract. Author Giulio Boccaletti argues that the biography of water is sociopolitical rather than technological. *Water: A Biography* examines human history through the lens of water—from the dawn of civilization to modern hydrologic states, with droughts, floods, and political turmoil occurring in between—relentlessly shaping human lives, societies, and history.

By probing the deep history of water and humans, the book paints a captivating story through the ages. Boccaletti chronicles each stage of civilization (from nomadic hunter-gatherers to sedentary pastoral societies to city states) along with examples (such as ancient Sumer and Rome and modern China and the United States), and how these societies were shaped by their relationship with water.

A major concern is that *Water* has ignored large geographic regions such as much of Latin America and Southeast Asia, where vital water-human co-evolution stories have played out independently over time. Nevertheless, the many worldwide historical and current contexts covered in *Water* are even more relevant today, as freshwater resources and the myriad ecosystem services they provide are ubiquitously threatened by the combined assault of anthropogenic pressures and climate change.

Throughout human history, the waterscape has transformed us, and we have altered it. Boccaletti's *Water* reminds us of the remarkable power water has to alter our existence, even as attempts are made to bend water to our will. The story of water has defined every aspect of life and will continue to do so.



Water: A Biography by Giulio Boccaletti (Pantheon Books, New York, 2021, p. 378, ~$20).

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